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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/576,033	04/14/2006	Charles M. Milliren	INTF-3621IUS1	9700
86378	7590	05/26/2010	EXAMINER	
Pearne & Gordon LLP 1801 East 9th Street Suite 1200 Cleveland, OH 44114-3108			COONEY, JOHN M	
			ART UNIT	PAPER NUMBER
			1796	
			NOTIFICATION DATE	DELIVERY MODE
			05/26/2010	ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

patdocket@pearne.com  
dchervenak@pearne.com

<b>Office Action Summary</b>	<b>Application No.</b> 10/576,033	<b>Applicant(s)</b> MILLIREN, CHARLES M.	
	<b>Examiner</b> John Cooney	<b>Art Unit</b> 1796	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 16 February 2010.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 35-37, 39-48 and 51-68 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 35-37, 39-48 and 51-68 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 14 April 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

Applicant's arguments filed 2-16-10 have been fully considered but they are not persuasive.

### ***Specification***

The amendment filed 12-17-08 is objected to under 35 U.S.C. 132(a) because it introduces new matter into the disclosure. 35 U.S.C. 132(a) states that no amendment shall introduce new matter into the disclosure of the invention. The added material which is not supported by the original disclosure is as follows: The subject matter added to paragraph [0048] constitutes new matter.

As to paragraph [0048], though the figure identified by applicants may include a value or values falling within the ranges of values encompassed by the subject added to the supporting disclosure, it is not seen to provide support for the subject matter as now recited in applicants' specification.

Applicant is required to cancel the new matter in the reply to this Office Action.

Applicants' arguments have been considered. However, objection is maintained.

The following previous holdings are maintained:

It is maintained that the originally filed supporting disclosure, including the figures, does not provide support for the ranges of values now encompassed by applicants' claims.

It is held and maintained that it is not seen that the originally filed supporting disclosure provides support for the specific values now claimed. It is not agreed that the lines from Figure 1 constitutes the disclosure of the invention or range of encompassing inventions by the use of the term "about". Further, it is not seen that the originally filed supporting disclosure provides support for the specific values now claimed for the range of compositions encompassed by the claims.

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Further, regarding applicants' latest arguments, it is held and maintained that the originally filed supporting disclosure, including Figure 1, lacks support for the description not set forth in the specification. The graphical representation of the identified performance characteristics of the sample of example 1 are based upon the observation of exact values from which a graph is then created. Applicants' omission of these specific values used in generating the graphical representation of Figure 1, though acceptable for filing their originally filed supporting disclosure, does not lend them license after filing to argue that the representation of Figure 1 is supportive of the range of observations encompassed by the variously employed recitations of "about" now included in paragraph [0048] as amended. The fact situation in the instant case do not parallel that of the case referred to in applicants' reply. It is maintained that the objected to language still needs to be removed from paragraph [0048] of the instant specification.

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 66-67 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to

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one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The recited impact properties and indicated recoverability and strength retention values as recited in applicants' claims are not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Support for the recitations of these claims is not seen to be adequately provided for by applicants' disclosure at paragraphs [0007],[0018], or from the Tables, Examples, or Figures of applicants' originally filed supporting disclosure. This is a new matter rejection.

Applicants' arguments have been considered. However, rejection is maintained.

The following previous holdings are maintained:

It is maintained that the originally filed supporting disclosure, including the figures, does not provide support for the ranges of values now encompassed by applicants' claims.

It is held and maintained that it is not seen that the originally filed supporting disclosure provides support for the specific values now claimed. Further, it is not seen that the originally filed supporting disclosure provides support for the specific values now claimed for the range of compositions encompassed by the claims.

Further, regarding applicants' latest arguments, it is held and maintained that the originally filed supporting disclosure, including Figure 1, lacks support for the now claimed invention set forth in claims 66-67. The graphical representation of the identified performance characteristics of the sample of example 1 are based upon the observation of exact values from which a graph is then created. These actual observations from which a graph was prepared were observed for a specific

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composition, the composition of foam 2 from example 1. These observations of the behavior of the sample of example 1 when exposed to certain and specific test operations can not be extrapolated to be observations that could be attributed to any other composition of the instant concern other than the specific composition to which the testing was performed. These results can not be assumed or expected of the other seven foams of Example 1 or the additional foams ten foams of example 3, nor can the results be assumed or expected of any foam having the accompanying limitations of applicants' claims 66 & 67 other than the specific foam composition of Foam #2 of Example 1.

Additionally, the position is taken that the examples are only suitable to provide support for the exemplified values as they pertain to the exemplified compositions. Appellants have not established that they were in possession of the claimed ranges of values prescribed by the claims through the use of the term "about" for the full scope of compositions encompassed by the claims at the time of filing. Furthermore, in view of the use of "about" to set forth ranges of values, it cannot be said that the claimed ranges of values set forth through the use of the term "about" can be appropriately gleaned from the graphical representation of observations made upon performing a particular action upon one specific composition. Here, also, it is seen and maintained that, although it is acceptable that applicants' omit the specific observations used to generate the graphical representation of Figure 1, applicants are not lent support for ranges of values that may arise from the ambiguities of their disclosure.

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The objection to the use of the specific phrase "substantially 100% recoverable" has been removed from the repeated arguments above. However, such does not rectify the other issues maintained hereinabove.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 35-37, 39-48 & 51-68 are rejected under 35 U.S.C. 103(a) as being unpatentable over Apichatachutapan et al.(2004/0266897).

Apichatachutapan et al. discloses preparations of viscoelastic polyurethane foam preparations wherein isocyanates having isocyanate content values as claimed by applicants are combined and reacted with polyol compositions including polyether polyols based on glycerols, amines, alkanolamines, and other initiators prepared from propylene oxide to the degrees required by the claims, and wherein the compositions are combined at an NCO index as defined by the claims and in the presence of water, various catalyst which are encompassing of those claimed, and additives (see abstract, paragraphs [0015]-[0040], as well as, the entire document). Apichatachutapan et al.'s preparations exhibit impact and strength properties which are not seen to differentiate

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from those of applicants' claims based on the materials and make-ups of the preparations claimed.

Apichatachutapan et al. differs from applicants' claims in that it does not specifically require that amine based polyether polyols be employed in their preparations. However, Apichatachutapan et al. does recite that amine initiators, and, particularly, the specific amines of applicants claims, can be used in the practice of their invention for the purpose of providing adequate isocyanate reactive components(see paragraph [0024]). Accordingly, it would have been obvious for one having ordinary skill in the art to have employed the amine initiators disclosed by Apichatachutapan et al. in the preparations of Apichatachutapan et al. in blended combinations for the purpose of providing their isocyanate reactive effect in the preparations of Apichatachutapan et al. in order to arrive at the products and/or processes of applicants' claims with the expectation of success in the absence of a showing of new or unexpected results.

Additionally, the reference provides disclosure of glycerine-based polyether polyols and NCO indexes as claimed and distinction based on these elements is not seen. Further, patentable distinction is not seen based on the inclusion of black paste of applicants' claims, because inclusion of pigmented fillers for coloration and reinforcement is well known to practitioners in the art, and their inclusion within the preparations of Apichatachutapan et al. for such purposes would have been obvious to one having ordinary skill in the art.

Also, regarding variations in amounts of respective reactant and additive components, it has long been held that where the general conditions of the claims are disclosed in the prior art, discovering the optimal or workable ranges involves only routine skill in the art. *In re Aller*, 105 USPQ 233; *In re Reese* 129 USPQ 402 . Further, a prima facie case of obviousness has been held to exist where the proportions of a reference are close enough to those of the claims to lead to an expectation of the same properties. *Titanium Metals v Banner* 227 USPQ 773. **(see also MPEP 2144.05 I)** Similarly, it has been held that discovering the optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F.2d 272,205 USPQ 215 (CCPA 1980).

Applicants' arguments have been considered. However, rejection is maintained.

The following previous holdings are maintained:

Upon closer consideration it is seen and maintained that the amine polyol of applicants' claims is provided for by the fair suggestions of Apichatachutapan et al.'s disclosure from its disclosed second isocyanate reactive component (see paragraphs [0023], [0025] & [0029]) wherein its disclosure allows for overlap in amount, OH number and initiator selection (and, accordingly, functionality, which is dictated by initiator selection). Apichatachutapan et al.'s teaching is not seen to be limited to the exemplified embodiments of its teachings.

Applicants' arguments pertaining to the above rejection under 35 USC 103 have been considered. However, rejection is maintained. The terminology "semi-rigid", from the standpoint of patentability, is not sufficient in distinguishing the claimed foams and processes from the foamed products and processes of the cited prior art. That the cited teachings recite additional and alternative material combinations beyond there preferred and exemplified embodiments does not derogate from what is fully taught or fairly suggested by the entirety of their disclosures. It is maintained that the limitations pertaining to amine-basis and alkylene oxide make-up are adequately addressed by the grounds of rejection set forth above, and applicants' assertions that the references lack

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specificity regarding these features are insufficient in overcoming the prima facie position of obviousness that is maintained to be evident.

Further, on review of the evidence of the showing of new or unexpected results, the following must be considered:

**Claims Must be Commensurate With Showings:**

Evidence of superiority must pertain to the full extent of the subject matter being claimed. *In re Ackerman*, 170 USPQ 340; *In re Chupp*, 2 USPQ 2d 1437; *In re Murch* 175 USPQ 89; *Ex Parte A*, 17 USPQ 2d 1719; accordingly, it has been held that to overcome a reasonable case of prima facie obviousness a given claim must be commensurate in scope with any showing of unexpected results. *In re Greenfield*, 197 USPQ 227. Further, a limited showing of criticality is insufficient to support a broadly claimed range. *In re Lemin*, 161 USPQ 288. See also *In re Kulling*, 14 USPQ 2d 1056.

**Results Must be Unexpected:**

Unexpected properties must be more significant than expected properties to rebut a prima facie case of obviousness. *In re Nolan* 193 USPQ 641 CCPA 1977.

Obviousness does not require absolute predictability. *In re Miegel* 159 USPQ 716.

Since unexpected results are by definition unpredictable, evidence presented in comparative showings must be clear and convincing. *In re Lohr* 137 USPQ 548.

In determining patentability, the weight of the actual evidence of unobviousness presented must be balanced against the weight of obviousness of record. *In re Chupp*, 2 USPQ 2d 1437; *In re Murch* 175 USPQ 89; *In re Beattie*, 24 USPQ 2d 1040.

Applicants' have not persuasively demonstrated unexpected results for the products and processes of their claims. Applicants have not demonstrated their results to be unexpected and more than mere optimizations of the knowledge in the art or more significant than being secondary in nature. Further, applicants' have not demonstrated their showing to be commensurate in scope with the scope of combinations now claimed.

The submitted declaration has been considered. However, the assertions of this declaration do not substitute for a fact based showing of new or unexpected results attributable to differences in their claims that are commensurate in scope with the scope of the claims. Hereto it is maintained and reiterated that the terminology "semi-rigid", from the standpoint of patentability, is not sufficient in distinguishing the claimed foams and processes from the foamed products and processes of the cited prior art.

Further, regarding applicants' latest arguments, it is held and maintained that rejection as set forth above is appropriate. It is stated above and maintained herein that

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the claims are not distinguished over the cited prior art through the use of the terminology "semi-rigid". Further, it is held and maintained as indicated above that the fully considered teachings and fair suggestions of the cited prior art are not limited solely to what is disclosed by the exemplified embodiments. The disclosures and embodiments beyond the specific exemplified embodiments of Apichatachutapan et al.'s are maintained to be appropriately looked to in assessing what is taught and/or fairly suggested by the fully considered cited prior art. It is held and maintained that the differences pointed to in the exemplified embodiments and the identification that components may not be required do not substitute for a fact based showing of new or unexpected results attributed to differences in the claims. As to the qualitative features set forth in claims 66 & 67, it is held and maintained that any physical differences in the make-up of the products of the instant concern are addressed in the rejection above. The qualitative properties of these claims are seen to be intrinsic properties possessed by articles formed or fairly suggested from the teachings and fair suggestions of Apichatachutapan et al.'s fully considered disclosure without unless an identification of unobvious differences in the physical make-up of the products of the claims can be associated with the qualitative features set forth in the claims.

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within

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TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to John Cooney whose telephone number is 571-272-1070. The examiner can normally be reached on M-F from 9 to 6.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James Seidleck, can be reached on 571-272-1078. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/John Cooney/

Primary Examiner, Art Unit 1796